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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,077

Applicant(s)

SILVERBROOK, KIA

Examiner

CHAN S. PARK

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 10, 13, 15, 17, 19, 21-26, 29-31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 13, 15, 17, 19, 21-26, 29-31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 4/15/08, and has been entered and made of record. Currently, **claims 1-3, 10, 13, 15, 17, 19, 21-26, 29-31 and 33** are pending.

Specification

2. The corrected or substitute specification was received on 4/15/08. The specification is acceptable.

Terminal Disclaimer

3. The terminal disclaimer filed on 4/15/08 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/803,073 (any patent granted on Application Number) has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

4. Applicant's arguments with respect to **claims 1-3, 10, 13, 15, 17, 19, 21-26, 29-31 and 33** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claims are objected to because of the following informalities:

Claim 10, line 2, "the paper substantially" should be -- the single paper sheet substantially --; and

Claim 23, line 3, "paper" should be -- single paper sheet --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 10, 13, 19, 21, 22, 25, 26, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. U.S. Patent No. 6,120,127 (hereinafter Inoue) in view of Purpura U.S. Patent No. 6,973,518 (hereinafter Purpura).

With respect to claim 1, Inoue discloses a monitor (note that a monitor is construed as a display device according to IEEE dictionary wherein fig. 36 of Inoue discloses a display device), the monitor comprising:

a flat display for displaying image data (display unit 1104 in figs. 36 & 39 or display unit 3313 in fig. 68);

a pagewidth inkjet printhead for printing print data (pagewidth printhead in col. 52, lines 25-33);

a multi-sheet paper holder for holding multiple paper sheet (tray for holding papers according to col. 31, lines 45-46 & tray 3333 or automatic paper sheet feeding device 3330 in col. 44, lines 40-54);

a paper sheet separator configured to separate a single paper sheet from the paper sheets in the multi-sheet paper holder for supply to the pagewidth inkjet printhead (a single sheet is fed automatically in the printing unit for printing in col. 31, lines 55-60 & col. 44, lines 42-44), and

a paper feed mechanism for feeding the single paper sheet to the pagewidth inkjet printhead for printing (a single sheet is fed automatically in the printing unit for printing in col. 31, lines 55-60 & col. 44, lines 42-44).

Inoue, however, does not explicitly disclose that the monitor is connected to an external computer and is configured to receive print data to be printed, and display data to be displayed, from an external computer.

Purpura, the same field of endeavor of the portable personal computer art (col. 5, lines 61-62), discloses a laptop computer configured to receive display data to be display from computer system (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the monitor of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

Therefore, it would have been obvious to combine Inoue with Purpura to obtain the invention as specified in claim 1.

With respect to claim 10, Inoue discloses a monitor as claimed in claim 1, wherein the paper feed mechanism is configured to position the single paper sheet substantially parallel in at least one direction with respect to a plane defined by the flat panel display (note that the paper in the automatic paper feeding device 3330 is positioned substantially parallel to the display in fig. 68).

With respect to claim 13, Inoue discloses a monitor as claimed in claim 1, wherein the printhead is a process color printhead (printer having a color recording head in col. 52, lines 54-61).

With respect to claim 19, Inoue discloses a monitor as claimed in claim 1, configured to enable printing of standard A4 or Letter sized sheets of paper (col. 15, lines 21-23).

With respect to claim 21, Inoue discloses a monitor as claimed in claim 1, further including a curved paper guide disposed (guide 3332 in fig. 68), when the monitor is in use, beneath the flat panel display (fig. 68), such that the paper that has been printed is urged horizontally as it exits the monitor (discharging the printed paper in fig. 68).

With respect to claim 22, Inoue discloses a monitor as claimed in claim 1, wherein the flat panel display is Liquid Crystal Display (display in col. 40, lines 65-67).

With respect to claim 25, Inoue discloses a monitor as claimed in claim 1, wherein the printhead is configured to print photographic images (col. 42, lines 44-45). It is apparent that the printer of fig. 68 is also used to print images.

With respect to claim 26, Inoue discloses a monitor as claimed in claim 1, wherein the printhead is configured to print image and text data (col. 42, lines 44-45 & fig. 1). It is apparent that the printer of fig. 68 is also used to print characters and images.

With respect to claim 29, Inoue discloses a monitor as claimed in claim 1 further comprising:

stand holding the flat panel display in an operative position (note that the body supporting the display in fig. 36 is construed as the claimed stand) wherein the stand includes ink cartridge for supplying ink to the printer (the bodying including the printhead 1406 in fig. 36). This particular embodiment of Inoue does not explicitly teach that the stand includes receptacle configured to accept a replaceable ink cartridge. However, Inoue, in the other embodiment, teaches the receptacle for accepting a replaceable ink cartridge (col. 26, lines 53-58). At the time of the invention, it would have been obvious to one of ordinary skill in the art to include this receptacle for accepting a replaceable ink cartridge in order to replace the exhausted cartridge.

With respect to claim 31, Inoue discloses a monitor as claimed in claim 1, wherein during printing, the paper sheet being printed onto passes between the flat panel display and the printhead (discharging the paper between the display and the

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printhead in col. 29, line 66 – col. 30, line 6), or passes behind the flat panel display and the printhead relative to a viewing position of the flat panel display.

7. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Nicolas.

With respect to claim 2, the combination discloses a monitor as claimed in claim 1, but it does not explicitly disclose that the viewable size of the monitor exceeds 40cm along a diagonal of the monitor.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49). Note that 17-inch is longer than 40 cm.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 2.

With respect to claim 17, the combination discloses a monitor as claimed in claim 1, but it does not explicitly disclose that the flat panel display measures at least 14 inches on the diagonal.

Nicolas, the same field of endeavor of the laptop computer art, discloses a laptop with a 17-inch monitor display (col. 1, lines 46-49).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a bigger (17-inch monitor) display into the printing and display device of Inoue.

The suggestion/motivation for doing so would have been to provide a wider and bigger display for viewing images.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 17.

8. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Morikawa et al. U.S. Patent No. 6,771,388 (hereinafter Morikawa).

With respect to claim 23, Inoue discloses a monitor of claim 1, but it does not explicitly disclose the printhead configured to receive halftoned print data to be printed onto the paper.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to receive halftoned print data to be printed onto the paper as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 23.

With respect to claim 24, Inoue discloses a monitor of claim 1, but it does not explicitly disclose the device including a halftoning unit for generating image data and supplying the halftoned image data to the printhead for printing.

Morikawa, the same field of endeavor of the inkjet printing art, discloses an inkjet printer wherein the inkjet printer processes image data to generate halftoned print data (col. 9, lines 1-11) and prints the halftoned print data using printhead (col. 9, lines 36-45).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate the halftoning unit to generate halftone image data and to print the data using the printhead as taught by Morikawa.

The suggestion/motivation for doing so would have been to reduce or eliminate the discontinuous gradation reproduction by applying the halftone processing to the printer of Inoue (abstract of Morikawa).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 24.

9. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Inoue and Purpura as applied to claim 1 above, and further in view of Silverbrook U.S. Patent No. 5,984,446.

With respect to claim 3, Inoue discloses a monitor of claim 1, but it does not explicitly disclose that the printer includes at least two printheads, the printheads being disposed on either side of a path through which the single paper sheet is fed for printing, thereby enabling substantially simultaneous printing of both sides of the single paper sheet.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including at least two printheads (printheads 50 in fig. 12), the printheads being disposed on either side of a path through which print media is fed for printing, thereby enabling substantially simultaneous printing of both sides of the paper (printing on both sides by two printheads according to col. 49, lines 29-32 & fig. 12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printer of Inoue to incorporate another printhead as taught by Silverbrook.

The suggestion/motivation for doing so would have been to facilitate a faster double-side printing by eliminating the step feeding back the printed paper for the second side printing.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 3.

With respect to claim 15, Inoue discloses a monitor of claim 1, but it does not explicitly disclose that the printer has more than 5,000 inkjet nozzles.

Silverbrook, the same field of endeavor of the inkjet printing art, discloses an inkjet printer including more than 5,000 inkjet nozzles (col. 19, lines 1-3).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printhead of Inoue to include more than 5,000 inkjet nozzles as taught by Silverbrook.

The suggestion/motivation for doing so would have been to provide a faster and more efficient color inkjet printing process (col. 19, lines 1-11 of Silverbrook).

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 15.

10. Claim 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Purpura, and further in view of Nickum U.S. Patent No. 7,003,279.

With respect to claim 30, Inoue discloses the monitor as claimed in claim 1 but it does not explicitly disclose a data connection hub configured to allow connection of at least one data-receiving device to the monitor, enabling the data-receiving device to receive data from the external computer.

Purpura, as noted above in claim 1, discloses a laptop computer configured to receive display data to be display from the external computer (receiving display data via Internet in col. 6, lines 25-34).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing and display device of Inoue to communicate with computer system (Internet network) to receive image data for display and printing.

The suggestion/motivation for doing so would have been to provide a large database access to the user for displaying and printing images.

The combination of Inoue and Purpura, however, does not explicitly disclose a data connection for receiving print data from a computer; and a data connection hub configured to allow connection of at least one data-receiving device to the printing and display device, enabling the data-receiving device to receive data from the computer.

Nickum, the same field of endeavor of the laptop computer art, discloses a laptop (laptop computer 400 in fig. 5) computer including a data connection (interface) for receiving data from a computer; and a data connection hub configured to allow connection of at least one data-receiving device to the laptop device, enabling the data-receiving device (external wireless interface device in fig. 5) to receive data from the computer (external wireless interface device col. 5, lines 48-54 for receiving data from the network).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the laptop of Inoue to include the interface for connecting the external wireless interface device as taught by Nickum.

The suggestion/motivation for doing so would have been to provide a wireless connection to the laptop even if the laptop does not have the internal wireless capability.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 30.

11. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue as applied to claim 1 above, and further in view of Shenoy et al. U.S. Patent Application No. 2003/0197887 (hereinafter Shenoy).

With respect to claim 33, Inoue discloses a monitor as claimed in claim 1, wherein the device further includes an interface for receiving input from a user indicative of a print command (user inputting a recording command in col. 30, lines 40-45).

Inoue, however, does not explicitly teach that the device is configured to receive documents to be printed from a computer system;
send, from the monitor to the computer system, a print request;
receive, from the computer system and in response to the print request, a document to be printed; and
print the document.

Shenoy, the same field of endeavor of printer accepting the print command (a user input for retrieving documents for print in paragraph 45), discloses a printer configured to:

receive documents to be printed from a computer system (paragraph 57);

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send, from the printer to the computer system, a print request (request for the document in paragraph 57);

receive, from the computer system and in response to the print request, a document to be printed (receiving/pulling document from the job store 140 in paragraph 57); and

print the document (paragraph 57).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the device of Inoue to include the function of requesting a desired document via the network as taught by Shenoy.

The suggestion/motivation for doing so would have been to save the memory in the printer by saving the print jobs at the external location.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 33.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CHAN S. PARK** whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625
June 20, 2008